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PEARL COHEN ZEDEK, LLP
10 ROCKEFELLER PLAZA
SUITE 1001
NEW YORK, NY 10020

EXAMINER

ALEJANDRO, RAYMOND

ART UNIT PAPER NUMBER

1745

DATE MAILED: 04/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/070,501

Applicant(s)

KLIATZKIN, VLADIMIR

Examiner

Raymond Alejandro

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 January 2005 and 28 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 28-46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 28-46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION***Response to Amendment***

This office communication is being provided in response to the amendments dated 01/24/05 and 02/28/05. The applicant has overcome the 35 USC 112 rejections. Refer to the abovementioned amendment for additional details on applicant's rebuttal arguments. However, the present claims are finally rejected as the 35 USC 103 rejection is maintained herein and for the reasons of record:

Specification

1. The amendments filed 09/13/04, 01/24/05 and 02/28/05 are objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: (claim 28) "*means for applying substantially uniform pressure on said electrodes in a direction substantially perpendicular to said electrodes*". It is noted that applicants have argued that the foregoing mean-plus functional language meets the 35 USC 112, 6th paragraph, and therefore, the claim element should be read in light of 35 USC 112, 6th paragraph. Having said that and in view of applicant's contention regarding this issue, the examiner has carefully reviewed applicant's specification to identify the means required to perform the function. Interestingly, on page 4 at lines 15-22 it has been disclosed that such means may be a spring, a spring-like element associated with a swelling separator, the battery cell's walls, the side walls of the cell. Furthermore, throughout the entire specification it has been disclosed that such means are "*to apply pressure to the external surface of the electrodes*"; and nowhere in the present disclosure the specific language "*in a direction*

substantially perpendicular to said electrodes” has been found. Furthermore, given that the specification does encompass the use of the battery cell’s walls and/or the cell’s side walls per se, it is further contended that applicant’s specification does not specifically envisions to apply pressure in the specific claimed direction, in fact, the specification offers a broad indication that pressure may be applied to the external surface of the electrodes regardless its direction because at least the battery cell’s walls and/or the cell’s side walls surround the entire periphery of the electrodes. Hence, pressure is applied all around the electrode surfaces.

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 28-46 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The added material which is not supported by the original disclosure is as follows: (claim 28) “*means for applying substantially uniform pressure on said electrodes in a direction substantially perpendicular to said electrodes*”. It is noted that applicants have argued that the foregoing mean-plus functional language meets the 35 USC 112, 6th paragraph, and therefore, the claim element should be read in light of 35 USC 112, 6th paragraph. Having said that and in

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view of applicant's contention regarding this issue, the examiner has carefully reviewed applicant's specification to identify the means required to perform the function. Interestingly, on page 4 at lines 15-22 it has been disclosed that such means may be a spring, a spring-like element associated with a swelling separator, the battery cell's walls, the side walls of the cell. Furthermore, throughout the entire specification it has been disclosed that such means are "*to apply pressure to the external surface of the electrodes*"; and nowhere in the present disclosure the specific language "*in a direction substantially perpendicular to said electrodes*" has been found. Moreover, given that the specification does encompass the use of the battery cell's walls and/or the cell's side walls per se, it is further contended that applicant's specification does not specifically envisions the application of pressure as instantly claimed, in fact, the specification offers a broad indication that pressure may be applied to the external surface of the electrodes regardless its direction because at least the battery cell's walls and/or the cell's side walls surround the entire periphery of the electrodes. Hence, pressure is applied all around the electrode surfaces. Further, clarification is required.

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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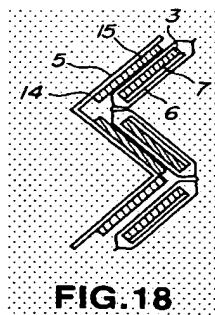
5. Claims 28-29, 34-36 and 41-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Honda et al 5580676 in view of Pyszczel et al 5756229.

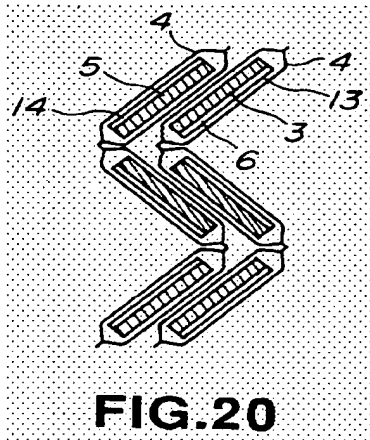
The present application is directed to a battery cell wherein the disclosed inventive concept comprises the specific unit configuration.

With respect to claims 28-29:

Honda et al disclose a rectangular battery including a plurality of cathode plates and anode plates alternately superposed via a separator to face each other. The cathode plates and the anode plates are consecutively packed with the separator and being folded at a separator fusing portion between the plates (ABSTRACT). It is disclosed that the anode plate is formed by a copper foil having both or one side thereof coated with a mixed anode agent; the separator is composed of a polymeric material and the rectangular battery has at least the cathode plates or the anode plates respectively packed with the separator, intrusion of the powder of the cathode plate and the anode plate into each other is prevented (COL 2, lines 25-38). It is disclosed that the layered product formed by the electrode plates and the separator is inserted into a rectangular **battery casing** and then a liquid electrolyte is filled therein (COL 1, lines 15-20). It is disclosed the electrode are enveloped by or packed between the separators and the packed electrode plates being folded at the separator fusing portion (COL 1, lines 60-67).

Figures 18 and 20 below illustrate battery embodiments





Examiner's note: the claim language "means for applying substantially uniform pressure ..." has now been construed as invoking the 35 USC 112, 6th paragraph. Since the Honda et al's battery requires a battery casing and said battery casing also requires walls to enclose or hold the battery components, it is contended that the battery casing per se satisfies the means-plus functional limitation of having "means for applying substantially uniform pressure on said electrodes in a direction substantially perpendicular to said electrodes".

As for claims 36, 42-45:

Honda et al disclose that the separator is formed of a porous polymeric material having holes, submicron to several micro diameter, opened therein for passing ions wherein the it is a sheet-like film of polypropylene or polyethylene (COL 4, lines 7-12/ COL 2, lines 30-33).

In the absence of a specific swelling degree, it is contended that the separator material swells within the electrolyte. That is, any material may expand in the presence of or when contacting other materials.

Regarding claim 41:

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It is noted that the battery enclosure itself of Honda et al imparts the necessary pressure and elasticity to ensure adequate electrical contact therein. *Thus, this function is inherent to the battery assembly per se.*

Honda et al disclose a battery according to the afore-described aspects. However, Honda et al do not expressly disclose the specific means for applying pressure; and the specific helical/spiral configuration.

With respect to claims 28 and 34:

Pyszczel et al teach an electrochemical cell having mechanical shock tolerance (TITLE) having a resilient member such as a resilient pad or a wave spring disposed therein (ABSTRACT). It is further disclosed that between each insulating sheet 50 and the corresponding end wall 16 and 18 is disposed a wave spring 52 for dissipating the mechanical forces acting to otherwise undersirably cause axial movements of the spirally-wound assembly 30 (COL 3, lines 12-18). It is disclosed that by use of wave springs for dissipating the mechanical shocks, a reliable shock-absorbing cell may be assembled easily, quickly, and inexpensively. It should be understood that this invention is not limited to the use of wave springs for shock-absorbing, but other suitable springs or other resilient members for dissipating the mechanical forces are meant to come within the scope of the present invention (COL 3, lines 19-28).

With respect to claim 35:

Pyszczel et al disclose a spirally-wound electrochemical cell having a resilient member such as a spring disposed between the spirally wound electrode and separator assembly (ABSTRACT).

In view of these disclosures, it would have been obvious to one skilled in the art at the time the invention was made to use the specific means for applying pressure of Pyszczel et al in the battery of Honda et al because Pyszczel et al disclose a wave spring 52 is disposed therein for dissipating the mechanical forces acting to otherwise undesirably cause axial movements of the spirally-wound assembly. Pyszczel et al further discloses that by use of wave springs for dissipating the mechanical shocks, a reliable shock-absorbing cell may be assembled easily, quickly, and inexpensively; and it should be understood that this invention is not limited to the use of wave springs for shock-absorbing, but other suitable springs or other resilient members for dissipating the mechanical forces are meant to come within the scope of the present invention. *Thus, Pyszczel et al at once envisage the use of pressure applying means such as a spring for mechanical shock tolerance in electrochemical cells.*

As to the specific helical/spiral configuration, it would have been obvious to one skilled in the art at the time the invention was made to use the specific helical/spiral configuration of Takamura et al in the battery of Honda et al as Takamura et al divulge that such specific helical/spiral configuration allows to effectively dissipate mechanical forces acting to otherwise cause axial movements of the electrode assembly. Thus, it enhances mechanical stability of the battery assembly.

6. Claims 29, 30, 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Honda et al 5580676 in view of Pyszczel et al 5756229 as applied to claim 28 above, and further in view of Schulze et al 5993618.

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Honda et al and Pyszczel et al are applied, argued and incorporated herein for the reasons above. However, the preceding prior art does not expressly disclose the specific flexible fabric electrode support and its thickness.

Schulze et al disclose an electrochemical cell in which a gas-diffusion electrode is provided as porous cathode wherein the carrier material is planar woven carbon fiber fabric (COL 7, lines 14-25). It is also disclosed that finished electrode is catalyzed (COL 7, lines 15-25). It is also disclosed that the fabric thickness is of 0.36 mm or 0.4-0.5 mm for a finished electrode (COL 7, lines 14-25). *Thus, the finished catalyzed electrode has a layer thickness ranging from 0.04-0.14 mm.*

In view of the above, it would have been obvious to one skilled in the art at the time the invention was made to use the specific flexible fabric electrode support of Schulze et al in the battery of Honda et al as Schulze et al disclose that such fabric electrode supports as well as the finished catalyzed electrode provide sufficient mechanical stability and structural integrity so as to be used in electrode applications.

As to the specific thickness, it would have been obvious to a skilled artisan at the time the invention was made to make Honda et al-Pyszczel et al' electrode by having the claimed thickness because even though Schulze et al's electrode thickness does not overlap or lie inside the claimed thickness a prima facie case of obviousness exist where the claimed ranges and prior art ranges do not overlap but are close enough that one skilled in the art would have expected them to have the same properties. *Titanium Metal Corp. of America v. Banner 227 USPQ 773.* Moreover, the normal desire of scientists or artisans to improve upon what is already generally known provides the motivation to determine a satisfactory and optimum thickness.

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7. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Honda et al 5580676 in view of Pyszczel et al 5756229 as applied to claim 28 above, and further in view of Aihara et al 2003/0170536.

Honda et al and Pyszczel et al are applied, argued and incorporated herein for the reasons above. However, the preceding prior art does not expressly disclose the specific pair of active material.

Aihara et al disclose batteries such as silver-zinc batteries as well as nickel-cadmium batteries (SECTION 0048).

In view of the above, it would have been obvious to one skilled in the art at the time the invention was made to use the specific pair of active material of Aihara et al in the battery of Honda et al-Pyszczel et al because Aihara et al disclose that, generally, batteries' teachings are especially effective and not limiting to specific applications, that is to say, batteries' teachings are applicable to either primary batteries such as silver-zinc batteries as well as other type of batteries such as nickel-cadmium batteries. Thus, Aihara et al envision the interchangeability of specific battery applications, components and teachings regardless of the particular battery chemistry.

8. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Honda et al 5580676 in view of Pyszczel et al 5756229 as applied to claim 28 above, and further in view of Takamura et al 4407907.

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Honda et al and Pyszczel et al are applied, argued and incorporated herein for the reasons above. However, the preceding prior art does not expressly disclose the specific grain/particle size.

Takamura et al disclose an electrode bodies comprising sintered powder material having a particle size of from 0.2-40 μm (COL 1, line 20-30).

In view of the above, it would have been obvious to one skilled in the art at the time the invention was made to use the specific grain/particle size of Takamura et al in the battery of Honda et al and Pyszczel et al as Takamura et al disclose that in electrodes have been common to use sintered powder material having the claimed particle size as it provides electrode structures having effective interface for discharge reactions and thus possible to obtain a large current generation.

9. Claims 38 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Honda et al 5580676 in view of Pyszczel et al 5756229 as applied to claim 28 above, and further in view of Takamura et al 4407907.

Honda et al and Pyszczel et al are applied, argued and incorporated herein for the reasons above. However, the preceding prior art does not expressly disclose the specific carbon fiber associated to the silver.

Takamura et al disclose an electrode body formed by integrating carbon powder carrying a catalyst such as silver (COL 1, lines 48-55).

In view of the above, it would have been obvious to one skilled in the art at the time the invention was made to use the specific carbon fiber associated to the silver of Takamura et al in

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the battery of Honda et al and Pyszczel et al as Takamura et al disclose that electrode bodies integrating the claimed material have a low oxygen reduction over-voltage.

10. Claims 39-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Honda et al 5580676 in view of Pyszczel et al 5756229 as applied to claim 28 above, and further in view of Faris et al 2003/0143446.

Honda et al and Pyszczel et al are applied, argued and incorporated herein for the reasons above. However, the preceding prior art does not expressly disclose the specific metal coating.

Faris et al disclose electrochemical cell system wherein the anode and the cathode have a particular degree of porosity e.g. 50 % (SECTION 0172, 0185-0186). Faris et al also disclose applying a thin metal layer of about 1-10 microns or thin metal layers applied to the anode surface including also zinc powder applied as a coating upon the surface thin metal layer (SECTIONS 0185-0187).

In view of the above, it would have been obvious to one skilled in the art at the time the invention was made to use the specific metal coating of Faris et al in the battery of Honda et al as Faris et al disclose that the function of the thin metal layer is to provide efficient current collection at the anode surface.

11. Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over Honda et al 5580676 in view of Pyszczel et al 5756229 as applied to claim 28 above, and further in view of Hampden-Smith et al 6689186.

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Honda et al and Pyszczel et al are applied, argued and incorporated herein for the reasons above. However, the preceding prior art does not expressly disclose the specific grid body and material; and the separator structure.

Hampden-Smith et al disclose electrode bodies being made as grid wherein the anode grid made of zinc, and the cathode grid using silver (COL 52, lines 15-35).

Hampden-Smith et al also disclose an electrochemical cell comprising a plurality of separator layers (COL 52, lines 8-20).

In view of the above, it would have been obvious to one skilled in the art at the time the invention was made to use the specific grid body and material of Hampden-Smith et al in the battery of Honda et al and Pyszczel et al as Hampden-Smith et al disclose that the claimed grid body and material are suitable for use in preparing storage batteries; additionally, it is taught that anodes/cathode are typically made of specific material and structures. Thus, Hampden-Smith et al directly teach the use of the specific grid electrode body and material. As far as the separator structure, it would have been obvious to one skilled in the art at the time the invention was made to use the separator structure of Hampden-Smith et al in the battery of Honda et al and Pyszczel et al as Hampden-Smith et al disclose that such separator structure acts as a semi-permeable membrane assuring adequate contact of the anode and cathode with the electrolyte.

Response to Arguments

1. Applicant's arguments filed 01/24/05 and 02/28/05 have been fully considered but they are not persuasive.

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2. The assertion that the prior art of record fails to disclose “*means for applying substantially uniform pressure acting on electrodes on a direction perpendicular to the electrodes*” is respectfully disagreed with. In that, it is contended that on page 4 at lines 15-22 of the specification it has been disclosed that such means may be a spring, a spring-like element. Thus, given that the specification does encompass the use of the battery cell’s walls and/or the cell’s side walls per se, it is further contended that applicant’s specification does not specifically envision the application of pressure as instantly claimed, in fact, the specification offers a broad indication that pressure may be applied to the external surface of the electrodes regardless its direction because at least the battery cell’s walls and/or the cell’s side walls surround the entire periphery of the electrodes. Hence, pressure is applied all around the electrode surfaces by the battery casing. Simply put, since Honda et al’s battery requires a battery casing and said battery casing also requires walls to enclose or hold the battery components, it is contended that the battery casing per se satisfies the means-plus functional limitation of having “means for applying substantially uniform pressure on said electrodes in a direction substantially perpendicular to said electrodes”.

3. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the two primary references (i.e. *Honda et al*’676 and *Pyszczel et al*’229) are

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pertinent to one another as they both address the same problem of providing electrochemical cells with suitable battery enclosures, mechanical stability and structural integrity. Additionally, the Aihara reference is also pertinent because it teaches subject matter strictly related to the field of applicant's endeavor.

4. With respect to applicant's arguments that "*Pyszczel's resilient member for applying pressurewould not apply pressure in a direction perpendicular to the electrodes*", the examiner simply points out that assuming arguendo that applicant's argument are correct, a point not conceded by the examiner, such resilient member (i.e. the wave springs) directly imparts pressure on the battery casing, the separator, the electrolyte which translates to a pressure indirectly applied on the electrode in a direction perpendicular to it by the battery casing, the separator and the electrolyte per se. That, since the resilient member is intended to exert pressure along a longitudinal axis of the battery, it does directly assist the battery to maintain structural stability, and therefore, it indirectly exert pressure to the electrode in a perpendicular direction. Thus, one way or another Pyszczel's resilient member is able to affect the electrode.

5. In response to applicant's arguments that the recitation "*one separator is made of a material that swells within the electrolyte, thereby applying said pressure on said electrodes*" is not disclosed by the applied references, it is contended that in the absence of a specific swelling degree, it is stated that the prior art separator material swells within the electrolyte because any material may expand in the presence of or when contacting other materials.

6. In response to applicant's argument that: a) "*Schulze does not refer to analogous art to Honda and Pyszczek*" or b) "*the Takamura reference does not refer to analogous art to Honda and Pyszczek*", that is to say, that neither *Schulze* nor *Takamura* are analogous art, it has been

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held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). *In this case, Schulze and Takamura are found to be relevant to the other references because they are both directed to electrochemical devices containing the specific claimed features, and wherein such claimed features are suitably used therein and allow those electrochemical devices to achieve significant functionality. Thus, even though the chemical environment of the electrochemical cells on each applied reference is not substantially the same, those of ordinary skill in the art have sufficient sophistication to recognize that such features may be interchangeably used therebetween; and unless applicant provides objective evidence demonstrating that such feature cannot be used in other electrochemical devices because they cause deleterious effects to them, those rejections will be maintained.*

7. With respect to applicant's arguments regarding the Schulze reference, it is noted that the Schulze reference has been used to teach the specific substrate and its thickness. Accordingly, the examiner does not understand why applicant has argued that the Schulze reference cannot be used therewith because it discloses electrodes separated by solid electrolyte membranes per se. Thus, applicant's arguments are not commensurate in scope with the language of claims 29-30 and 32.

8. With reference to applicant's arguments regarding Aihara, it is also noted that the Aihara reference has been used to teach the specific electrode chemistry. Accordingly, the examiner does not understand why applicant has provided arguments addressing the bonding and the

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integral rigid body of the separator. Thus, applicant's arguments are not commensurate in scope with the language of claim 31.

9. With respect to applicant's arguments regarding the Faris et al reference, it is noted that such reference has been used to reject claims 39-40 per se and not claim 38. Accordingly, the examiner agrees with applicant's arguments that the Faris et al reference is irrelevant to claim 38.

10. Schulze reference, it is noted that the Schulze reference has been used to teach the specific substrate and its thickness. Accordingly, the examiner does not understand why applicant has argued that the Schulze reference cannot be used therewith because it discloses electrodes separated by solid electrolyte membranes per se. Thus, applicant's arguments are not commensurate in scope with the language of claims 29-30 and 32.

11. Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references. This is to address applicant's arguments regarding the Hampden-Smith references.

Conclusion

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period

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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raymond Alejandro whose telephone number is (571) 272-1282. The examiner can normally be reached on Monday-Thursday (8:00 am - 6:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Raymond Alejandro
Primary Examiner
Art Unit 1745

RAYMOND ALEJANDRO
PRIMARY EXAMINER

